

Application Serial No. 10/594,174
Supplemental Response to Office Action dated February 18, 2009

PATENT
Docket: CU-5102

Amendments to the Claims

The listing of claims presented below replaces all prior versions, and listings, of claims in the application.

Applicant wishes to make the following amendments to the claims of the above patent application:

Listing of Claims

1-16. (cancelled)

17. (new) A method for producing a patterned cell culture substrate comprising: forming: on a base material, a light shielding element containing a material which can shield ultraviolet ray or visible light, and a cell adhesive layer containing a material to which cells adhere and which is decomposed or denatured by an action of a photocatalyst upon energy irradiation wherein the photocatalyst is contained in the cell adhesive layer;

irradiating energy to the patterning substrate from the base material side to form a pattern consisting of: a cell adhesion inhibiting portion in which the cell adhesive material is decomposed or denatured, and a cell adhesion portion which is other than the cell adhesion inhibiting portion; and

attaching or adhering a cell to the cell adhesion portion, wherein the cell is in a cell culture.

18. (new) A method for producing a patterned cell culture substrate comprising: forming: on a base material, a light shielding element containing a material which can shield ultraviolet ray or visible light, and a cell adhesive layer containing a material to which cells adhere and which is decomposed or denatured by an action of a photocatalyst upon energy irradiation wherein the photocatalyst is contained in between the cell adhesive layer and the light shielding element;

irradiating energy to the patterning substrate from the base material side to form a pattern consisting of: a cell adhesion inhibiting portion in which the cell adhesive

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material is decomposed or denatured, and a cell adhesion portion which is other than the cell adhesion inhibiting portion; and attaching or adhering a cell to the cell adhesion portion, wherein the cell is in a cell culture.

19. (new) The method for producing a cell culture substrate according to claim 17, wherein the cell adhesion inhibiting portion is further irradiated to further inhibit cell adhesion to the cell adhesion inhibiting portion.

20. (new) The method for producing a cell culture substrate according to claim 18, wherein the cell adhesion inhibiting portion is further irradiated to further inhibit cell adhesion to the cell adhesion inhibiting portion.

21. (new) The method for producing a cell culture substrate according to claim 17, wherein the pattern of the cells adhered to the substrate is retained by further irradiating the cell adhesion inhibiting portion to remove cells from the cell adhesion inhibiting portion after cells are attached or adhered to the cell adhesion portion.

22. (new) The method for producing a cell culture substrate according to claim 18, wherein the pattern of the cells adhered to the substrate is retained by further irradiating the cell adhesion inhibiting portion to remove cells from the cell adhesion inhibiting portion after cells are attached or adhered to the cell adhesion portion.